

Legal Name of Requesting Entity: Scientific Research Corporation.

Address of Requesting Entity: Scientific Research Corporation, 2300 Windy Ridge Parkway, Suite 400, Atlanta, GA 30339.

Description of Request: This program will utilize recently developed Wavelet Packet Modulation (WPM). The \$1,600,000 appropriated will be used to implement design modifications for limited rate initial production, including form factor packaging changes for ruggedization and for integration with signal intelligence systems. Additionally, production readiness for integration with existing communications systems will occur. Finally, module testing will be subjected to continued assessment and utility testing on multiple platforms. The enhanced modules will then undergo a final government Production Readiness Review, paving the way for subsequent deployment. Covert WPM Communications Modules as communications links for multiple platforms, including unmanned aerial systems, provide a critical solution to special operations warfighters that require the ability to communicate covertly without detection. Funding is required for hardware and software engineering, integration, and test (64%); specialized equipment (21%); specialized software (13%); and travel to U.S. Special Operations Command and to military test sites (2%). This request is consistent with the intended and authorized purpose of the U.S. Special Operations Command Special Operations Tactical Systems Development program.

Requesting Member: Congressman PHIL GINGREY.

Bill Number: H.R. 2638.

Account: Other Procurement, Army.

Legal Name of Requesting Entity: Meggitt Training Systems.

Address of Requesting Entity: Meggitt Training Systems, 7340 McGinnis Ferry Road, Suwanee, GA 30024.

Description of Request: The \$4,000,000 appropriated will continue the multi-year upgrade and modernization of existing firearms simulation systems in the Army National Guard necessary to meet the validated system standard. The modernization includes the conversion to digital systems and acquiring tetherless simulated weapons that allow better freedom of movement and enhanced realism than the tethered version. The Army National Guard views modernization as critical to resolving an immediate mandatory small-arms training need in support of the Guard's role in the global war on terrorism and homeland security.

The system features courseware and training scenarios that address new and complex tactical situations and provides soldiers with the ability to conduct weapons, judgmental, and military training in a tactical environment built on geo-specific terrain databases. It simulates tactical small unit defensive and offensive situations such as security operations, fire & maneuver, and hostage & clearing operations in built-up urban areas.

Small unit leaders use the system to conduct mission planning and rehearsal. Indirect fire, close air support, and combined arms training capability are included. Additionally, the system's embedded scenario authoring capability allows the user to quickly author a scenario reflecting emerging doctrinal and/or mission requirement changes. Weather effects, environmental conditions, and protective

clothing/gear can all be factored into the authored scenario.

Of the 266 systems in the Guard inventory, 169 have not been upgraded. These funds will allow for the upgrade of approximately 45 of those systems.

#### EARMARK DECLARATION

**HON. JAMES T. WALSH**

OF NEW YORK

IN THE HOUSE OF REPRESENTATIVES

*Wednesday, September 24, 2008*

Mr. WALSH of New York. Madam Speaker, consistent with Republican transparency standards, the following is a disclosure for each of my requested projects in the FY 2009 Department of Defense Appropriations Bill:

Requesting Member: Rep. JAMES T. WALSH.

Bill Number: FY 2009 Department of Defense Appropriations Bill.

Account: RDT&E, Navy.

Legal Name of Requesting Entity: Photon Gear, Inc., Ontario, NY.

Address of Requesting Entity: 245 David Parkway, Ontario, NY 14519.

Description of Request:

(1) Include \$800,000 for Agile Laser Eye Protection.

The Office of Naval Research in conjunction with the Naval Air Systems Command has funded the initial development of a frequency-agile laser eye protection unity magnification goggle. This day-only, unity magnification goggle, demonstrated in earlier laboratory and field testing, is the first ever device capable of providing laser eye protection across the visible and near infrared portion of the spectrum in daytime situations, thereby eliminating the need for multiple, fixed wavelength forms of laser eye protection. Hostile use of lasers against U.S. military assets to inflict personnel injury, damage targeting sensors, and degrade/deny mission success continues to increase. The eyesight of aircrew and electro-optical sensors are susceptible to both temporary and permanent damage and are of particular concern to the U.S. military. Current laser eye protection targets known, fixed wavelength laser threats. These devices require a prior knowledge of the potential threat. Due to limited transmittance these devices cannot provide protection across the entire visible, near infrared portion of the electromagnetic spectrum. An integrated approach to providing frequency-agile laser eye protection with advanced helmet mounted displays to provide full protection during day and night operations is critical, and would ultimately provide cost savings to the military by eliminating the need for different day/night usable fixed wavelength protection to cover all the potential wavelengths. A fully integrated Unity Magnification Goggle/Modular Advanced Visions System displaying day, night and Forward Looking Infrared scene information and targeting symbology would provide a versatile device that would potentially provide further cost savings while enhancing situational awareness.

Requesting Member: Rep. JAMES T. WALSH.

Bill Number: FY 2009 Department of Defense Appropriations Bill.

Account: RDT&E—Army.

Legal Name of Requesting Entity: Sensis Corporation, Syracuse, NY.

Address of Requesting Entity: 85 Collamer Crossings, East Syracuse, NY 13057.

Description of Request: (1) Include \$2 million for the Lookout Small Scale Radar Program.

Hostile fire is extremely devastating for patrol teams in areas of limited visibility such as urban centers, sea ports and canals. The hostile fire typically originates in rapid bursts from well-hidden areas leaving little time for teams to react with effective counter-fire and maneuver. Often the point of origin of the hostile fire is undeterminable, limiting counter-fire to strafing fire with high potential for undesired collateral damage and low probability of neutralizing the threat. Techniques are needed to quickly and accurately identify the origin of hostile fire, rapidly cue precision counter-fire and reduce undesired collateral damage.

In air-to-air and surface-to-air engagement domains, radar, more than any other technology, has proven its effectiveness in directing counter-fire and maneuver. Unfortunately, factors like size, weight, and expense of traditionally configured radar systems have limited its use to just a few ground surveillance applications. Additional investment is needed in small scale radar technology to rapidly transition new architectures to fieldable systems that show promise of improving situational awareness, force survival and engagement effectiveness for deployed forces. SENSIS, Inc. of East Syracuse, NY and Southwest Research Institute of San Antonio, TX have developed small scale radar and tagging technology that can serve as the foundation for accelerating the development of a prototype sniper detection and counter-fire radar systems for deployed forces.

Requesting Member: Rep. JAMES T. WALSH.

Bill Number: FY 2009 Department of Defense Appropriations Bill.

Account: RDT&E—Air Force.

Legal Name of Requesting Entity: Welch Allyn, Skaneateles Falls, NY.

Address of Requesting Entity: 4341 State Street Road, Skaneateles Falls, NY 13153.

Description of Request: (1) Include \$2 million for a Personal Status Monitor.

The R&D funding obtained for this project will allow for further development of its smart sensing technologies which provide on-body sensing of physiologic parameters that can be relayed to a remote server by means of a series of wireless relay devices for notification in the case of a critical or life threatening event. Applications include deployment on individuals or groups of individuals who are subject to catastrophic physiologic events such as military personnel, public safety personnel and those with cardiovascular disease.

This R&D will provide the DoD with mobile, wireless monitoring of patients or soldiers who would benefit from being monitored where traditional monitoring has not typically been utilized due to the high cost and weight, high power consumption, lack of instrumentation durability and interoperability, and instrumentation tethering.

Requesting Member: Rep. JAMES T. WALSH.

Bill Number: FY 2009 Department of Defense Appropriations Bill.

Account: Other Procurement, Navy.

Legal Name of Requesting Entity: GE Inspection Technologies, Skaneateles, NY.

Address of Requesting Entity: 721 Visions Drive, Skaneateles, NY 13152.

Description of Request:

(1) Include \$800,000 for Conditions-Based Inspection Technologies for Propulsion Equipment.

Navy propulsion systems must be inspected at regular intervals. Currently there is little integration of test protocols and individuals performing inspections lack the hardware and software for guided inspection requirements. Also, there is no capability to transmit in real time the data collected during the on-board inspections to remote experts who can make the determination of fitness-for-service of the propulsion system under inspection. This funding will result in the development of hardware and software leading to an interactive inspection reporting system that provides inspection guidance and the ability to communicate, in real time via the internet, with remote experts assisting in the fitness determination of the inspected propulsion system.

Navy propulsion systems have unique features which require integrated solutions outside the commercial application of the described product development. This funding will support the creation of an integrated solution that meets the need of the Navy's nonnuclear propulsion ships but requires a partnering with the Navy to ensure that the integration meets the Navy's unique requirements. The development of software integrated test protocols and real time integration will improve up-time and minimize unnecessary delays during inspections. The inspection standardization will improve overall inspection quality of propulsion systems and reduce the need to take equipment off-line.

Requesting Member: Rep. JAMES T. WALSH.  
Bill Number: FY 2009 Department of Defense Appropriations Bill

Account: RDT&E—Army  
Legal Name of Representing Entity: Syracuse Research Corporation, Syracuse, NY

Address of Requesting Entity: 6225 Running Ridge Road, Syracuse, NY 13212

Description of Request:

(1) Include \$3.2 million for Foliage Penetrating, Reconnaissance, Surveillance, Tracking and Engagement Radar (FORESTER).

FORESTER is an ongoing program with radar integration and testing continuing through the remainder of FY 2008 on the A160 Hummingbird. The program objectives are being met, namely to detect and track people and vehicles in the open or through foliage to a range of at least 50 km. FORESTER can also detect and track moving low-altitude air vehicles such as helicopters, small Unmanned Aerial Vehicles, and aircraft to a range of 75 km. Additionally, FORESTER has a real-time radar mode to image targets concealed in the foliage. The FY 2009 request will provide funding necessary to transition FORESTER to the User community and apply the technology to additional platforms.

Currently, U.S. forces have no radar capability to detect and track activity under foliage. FORESTER is an airborne sensor system that provides standoff and persistent wide-area surveillance of dismounted troops and vehicles moving through foliage. Designed and developed to fly on the A160 Hummingbird unmanned helicopter, FORESTER is a one-of-a-kind technology providing the warfighter with all-weather, day-night target detection and tracking capability in real-time. This request would leverage the existing technology to accommodate other platforms and border surveillance applications. Specifically, transition the FORESTER prototype to an operational

configuration adding User specific capabilities, including: performance improvements, platform integration, flight test execution, and demonstration of the system on new platforms.

Requesting Member: Rep. JAMES T. WALSH.  
Bill Number: FY 2009 Department of Defense Appropriations Bill

Account: RDT&E—Army.

Legal Name of Representing Entity: Ultralife Batteries, Inc. Newark, NY.

Address of Requesting Entity: 2000 Technology Parkway, Newark, NY 14513.

Description of Request:

(1) Include \$1.6 million for a Solid Oxide Fuel Cell Powered Tactical Smart Charger

This funding will be utilized to design, breadboard and test a 1 kW tactical smart lithium ion battery charger powered by a solid oxide fuel cell operating on JP 8, the U.S. Army's logistical fuel.

Charging a high volume of communication and Land Warrior batteries requires high power DC input to the charger from a diesel generator, vehicle battery or AC line power. To effectively operate a 1 kW charger in a forward environment or in a tactical operational area with an unreliable power grid, an efficient, lightweight portable DC power source is required. Power from a vehicle or van battery is not ideal. Incremental batteries added to the charger at a constant given output load require longer and longer charge times, reducing overall efficiency and battery throughput. Diesel generators are not an optimal solution as they are costly, fuel inefficient, have a significant noise and thermal signature, pose significant fuel logistics and require periodic preventative maintenance. Solid oxide fuel cells are three times more efficient than diesel generators. This solution lowers operational fuel costs for chargers. Increased fuel efficiency also improves logistics and handling of fuel, reducing logistical tails and handling risks.

Requesting Member: Rep. JAMES T. WALSH.  
Bill Number: FY 2009 Department of Defense Appropriations Bill

Account: RDT&E—Navy.

Legal Name of Representing Entity: Anaren Corporation, East Syracuse, NY.

Address of Requesting Entity: 6635 Kirkville Road, East Syracuse, NY 13057.

Description of Request:

Include \$10.7 million for the Next Generation Phalanx Program with a laser demonstration. Phalanx is a combat proven system that provides effective and affordable terminal defense against rocket, artillery and mortar threats ashore and small boat, aircraft and anti-ship cruise missile threats at sea. As existing threats evolve and new threats emerge, Phalanx must advance to ensure protection for U.S. forces.

The proposed next generation Phalanx roadmap requires the following for FY 2009: (1) continuation of efforts leading to the Critical Design Review for the redesign and repackaging of outdated electronics; (2) incorporation of advanced electro-optical sensor technology; (3) demonstration of high energy laser to successfully defeat traditional and asymmetric threats; (4) inclusion of high reliability upgrades and improved fire control accuracy necessary to facilitate the introduction of directed energy devices; (5) develop portable, stand-alone version of radar for use on small ships. These activities will be completed within the context of open computing architecture and network-centric operations while leveraging existing Navy and joint investments. This effort will also pursue every pos-

sible opportunity to reduce both manpower and maintenance requirements. This request is No. 5 on the Chief of Naval Operations FY09 Unfunded Requirements List.

Requesting Member: Rep. JAMES T. WALSH.  
Bill Number: FY 2009 Department of Defense Appropriations Bill

Account: RDT&E—Air Force.

Legal Name of Representing Entity: Hancock Field, Air National Guard, Syracuse, NY.

Address of Requesting Entity: 6001 East Malloy Road, Syracuse, NY 13211.

Description of Request:

(1) Include \$3 million for Hancock Field, Syracuse MQ-9 Reaper, UAS Air Portal.

Unmanned Aircraft Systems (UAS) play a vital role in combat operations. These roles now include tactical strike and force protection in addition to ISR (Intelligence, Surveillance and Reconnaissance). For tactical strike missions the operational impacts are significantly different than the typical long endurance ISR missions. Training opportunities for UAS units are often constrained by the lack of adjacent restricted airspace. For units of the Air National Guard (ANG) this presents more numerous and costly problems. A typical ANG unit is made up of part time individuals who are members of a particular unit because they live in the community in which the unit operates. Relocation of the units would have a detrimental effect on force strength. Transportation and remote lodging of these units is expensive and logistically inefficient.

Currently UAS operational safety concerns are dealt with through procedural methods such as limiting operations to restricted airspace, special use airspace or by establishing temporary flight restrictions. In order to fully optimize the full potential of UAS, these types of restrictions need to be overcome. The DOD/NAS integration strategy is an incremental approach that gradually allows a UAS access to airspace in the NAS. The JIPT Strategy for Airspace Integration includes three main phases:

(1) Installation specific CONOPS by platform.

(2) Platform access to any military airfield.

(3) Platform specific access by air category.

While the first phase has been accomplished, and plans are in place for enabling the second phase, completing the final phase entails integration with the FAA. Due to concerns about safety there has been significant resistance to permit file-and-fly access for UAS in the same manner that is available to manned aircraft. Part of the resistance stems from the lack of see and avoid capability of the UAS.

While see and avoid technology is maturing, the full solution will likely require a combination of technologies, such as Optics, Acoustic, Radar, and Beacon surveillance; and the integration of airborne and ground systems. It is the development of this multi-mode capability in support of UAS operation in the NAS that this program will address.

An appropriate test bed will include the ability to demonstrate safe operation in the following:

(1) Flight operations in and out of a FAA controlled airport

(2) The potential to demonstrate operations in all weather

(3) Training and Mission Support to Homeland Defense and Homeland Security Missions (Border Protections)

(4) Training operations with ground troops. Syracuse, NY is a uniquely qualified environment to overcome the obstacles of FAA restrictions and become proficient in mixed air-space operations. The relatively light air traffic load at this FAA controlled airport also provides varying weather patterns, with close proximity to an international border, and the 19th Mountain Division at Ft. Drum.

The combined technologies proposed for this program are capable of providing effective and reliable situational awareness to facilitate unmanned systems operation in mixed air-space.

Requesting Member: Rep. JAMES T. WALSH.  
Bill Number: FY 2009 Department of Defense Appropriations Bill.

Account: RDT&E—Air Force.  
Legal Name of Representing Entity: ITT Space Systems Division, Rochester, NY.

Address of Requesting Entity: 1447 St. Paul Street, Rochester, NY 14653.

Description of Request:

(1) Include \$1.6 million for Broad Area Multi-Intelligence Ubiquitous Surveillance Enterprise Broad Area Multi-Intelligence Ubiquitous Surveillance Enterprise (BMUSE) is a web-based software solution for persistent collection of information over multiple disparate locations from existing platforms and sensors. The FY09 budget request in the Program Element contains approximately \$5 million to develop advanced intelligence, surveillance and reconnaissance capabilities against focused, niche capabilities like information extraction and fusion. There is not sufficient funding to work the persistent surveillance problem and migrate promising research to operational capability in the field.

BMUSE addresses a technology capabilities gap by integrating images from different sensors into a common workstation whereby real-time data from multiple sensors can be used to target high value assets on the battlefield. BMUSE will provide virtual persistence for tactical forces, denying the enemy sanctuary, yielding actionable intelligence, and significantly improving mission success.

#### EARMARK DECLARATION

**HON. BARBARA CUBIN**

OF WYOMING

IN THE HOUSE OF REPRESENTATIVES

Wednesday, September 24, 2008

Mrs. CUBIN. Madam Speaker, in conformance with Republican Earmark Standards Guidance, I hereby submit the attached detailed finance plan for the C-130 Squadron Operations Facility at the Cheyenne Municipal Airport in Cheyenne, WY. This project is funded at \$7,000,000 in H.R. 2638, the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act of 2009, as reported by the House Rules Committee on September 23, 2008. I am pleased to support this project on behalf of the Wyoming National Guard as they seek to fulfill vital national defense and homeland security requirements in association with the active duty Air Force.

Requesting Member: Rep. BARBARA CUBIN (WY—At Large).

Bill Number: H.R. 2638.

Account: Military Construction; Air National Guard.

Legal Name of Requesting Entity: Wyoming National Guard.

Address of Requesting Entity: 5500 Bishop Boulevard/Cheyenne, WY 82009.

Description of Request: Provide an earmark for \$7,000,000 to construct a squadron operations facility at the Cheyenne Municipal Airport in Cheyenne, WY. Specifically, \$5,795,000 for basic construction of the approximately 26,200 square foot facility; \$200,000 for utilities; \$165,000 for roadway and parking pavements; \$55,000 for site improvements; \$75,000 for communications support; \$315,000 in contingency funds for unforeseen expenses; and \$396,000 for supervision, inspection and overhead. This request is consistent with the intended and authorized purpose of the Air National Guard's Military Construction account. The Wyoming National Guard has identified a need for this new, consolidated facility to provide space for administration, training, intelligence, life support, survival equipment, command post, flight planning, aircrew briefing rooms, flight management, and storage. This facility is designed to sustain 24-hour/day operations supporting airborne firefighting, aeromedical evacuation, and homeland defense missions of 12-PAA C-130 aircraft associated with active duty Air Force personnel.

In conformance with Republican Earmark Standards Guidance, I hereby submit the attached detailed finance plan for the ADAL Missile Service Complex at F.E. Warren Air Force Base in Cheyenne, WY. This project is funded at \$810,000 in H.R. 2638, the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act of 2009, as reported by the House Rules Committee on September 23, 2008. I am pleased to support this project on behalf of F.E. Warren Air Force Base as the base continues its efforts to provide our nation with robust nuclear deterrence.

Requesting Member: Rep. BARBARA CUBIN (WY—At Large).

Bill Number: H.R. 2638.

Account: Military Construction; Air Force.

Legal Name of Requesting Entity: F.E. Warren Air Force Base—Address of Requesting Entity: F.E. Warren Air Force Base.

Description of Request: Provide an earmark of \$9,043,000 for a modern and efficient facility in which to perform missile component repair, technical training, administrative functions, and security code issuance. This requirement will provide a Keys and Codes Control Center (KCCC) and an Operational Security Keys and Codes (OSC) center. It will also provide a Proof Load Test Pit (PLTP), an essential part of Minuteman III (MMIII), as well as a facility to test the structural integrity of the missile carriage and erection vehicle, something that occurs 10–20 times each month. The \$810,000 earmark in this bill will support planning and design for this project.

In conformance with Republican Earmark Standards Guidance, I hereby submit the attached detailed finance plan for the Multicontinuum Technology for Space Structures project in Laramie, WY. This project is funded at \$2,880,000 in H.R. 2638, the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act of 2009, as reported by the House Rules Committee on September 23, 2008. I am pleased to support this project on behalf of Firehole Technologies, Inc. as they continue their efforts to provide our Armed Forces with a foundation for the efficient computer analysis of the composite structures that are growing in importance to our national security.

Requesting Member: Rep. BARBARA CUBIN (WY—At Large).

Bill Number: H.R. 2638.

Account: Research, Development, Test and Evaluation, Air Force; Space Technology; Line 13.

Legal Name of Requesting Entity: Firehole Technologies, Inc.

Address of Requesting Entity: Wyoming Technology Business Center/Dept. 3011, 1000 E. University Avenue/Laramie, WY 82071

Description of Request: Provide an earmark of \$3.6 million to develop a foundation for accurate and efficient computer analysis of composite structures in order to ensure their optimized application and, ultimately, mission success. The Air Force is actively designing and developing space structures where increased payloads, structural precision and deployable sub-structures are critical to mission success. Composites have emerged at the forefront of the material selection process for these applications based upon their unique strength-to-weight ratios, physical property tailoring, and shape memory capability.

Specifically, the budget for this project breaks down as follows: \$1,626,713 for engineering labor; \$585,000 for University of Wyoming subcontract expenses; \$133,835 in consulting costs; \$93,805 in travel expenses; \$404,647 in General and Administrative expenses; and \$756,000 for Air Force program management.

In conformance with Republican Earmark Standards Guidance, I hereby submit the attached detailed finance plan for the Eye-Safe Long Range Stand-Off System for Detection of Chemical and Biological Weapons project in Laramie, WY. This project is funded at \$1,500,000 in H.R. 2638, the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act of 2009, as reported by the House Rules Committee on September 23, 2008. I am pleased to support this project on behalf of DeltaNu as they continue their efforts to provide our Armed Forces with enhanced chemical/biological materials long-range detection capabilities.

Requesting Member: Rep. BARBARA CUBIN (WY—At Large).

Bill Number: H.R. 2638.

Account: Research, Development, Test and Evaluation, Defense-Wide; Chemical and Biological Defense Program—Advanced Development; Line 33.

Legal Name of Requesting Entity: DeltaNu.

Address of Requesting Entity: 628 Plaza Lane/Laramie, WY 82070.

Description of Request: Provide an earmark of \$4.5 million for the development of long-range chemical/biological detection technology critical to new requirements for U.S. forces in the Middle East. Currently available detection systems are based on outdated technology that will never be able to provide soldiers sufficient early warning about incoming chemical/biological weapons.

This project received \$1.12 million for FY08 to develop a hand-held detection device to function up to 25 meters and beyond, though this device is not eye-safe. This year's request will continue to enhance the range at which the device can be used effectively, as well as fund the development of an eye-safe version of this product. The chemical/biological detection system developed by this request will enhance several military capabilities, including: the ability to detect exposed personnel or vehicles before they enter a base; the detection